E.3 PROJECT-SPECIFIC WASTE MANAGEMENT ACTIVITIES

This section describes in detail the waste management activities at the facilities being evaluated in this PEIS for the proposed long-term storage and disposition of weapons-usable fissile materials. All facilities that would support the storage and disposition program would be designed to be fully compliant with DOE orders and all applicable Federal and State environmental regulations and statutes. Facility designs incorporate waste minimization and pollution prevention. To facilitate waste minimization, where possible, nonhazardous materials would be substituted for those materials that contribute to the generation of hazardous or mixed waste. Material from the waste streams would be treated, where possible, to facilitate disposal as nonhazardous wastes. Future D&D considerations have also been incorporated into the designs. The estimated waste quantities generated in the proposed facilities are conservative so as to provide an upper bound. Once a facility is built and operational, a significant decrease in waste generation would occur by incorporating future technologies.

Solid and liquid nonhazardous wastes generated during construction would include concrete and steel construction waste materials and sanitary wastewater. The steel construction waste would be recycled as scrap material before completing construction. The remaining nonhazardous wastes generated during construction would be disposed of as part of the construction project by the contractor. Uncontaminated wastewater would be used for soil compaction and dust control, and excavated soil would be used for grading and site preparation. Wood, paper, and metal wastes would be shipped offsite to a commercial contractor for recycling. Hazardous wastes such as adhesives, motor oil, and lubricants would be packaged in DOT-approved containers and shipped offsite to commercial RCRA-permitted treatment, storage, and disposal facilities. Except for the HEU storage upgrade at Y–12, no radioactive waste would be generated during construction. No soil contaminated with hazardous or radioactive constituents is expected to be generated during construction. However, if any contaminated soil is generated it would be managed in accordance with site practice and all applicable Federal and State regulations.

E.3.1 FISSILE MATERIAL LONG-TERM STORAGE FACILITIES

The Preferred Alternative for the long-term storage of surplus Pu involves a combination of upgrade (SRS, ORR, and Pantex), No Action (Hanford, NTS, INEL, and LANL), and phaseout (RFETS).

This section describes the waste management activities at facilities that would provide long-term (50 years) storage for weapons-usable fissile material. Table E.3.1–1 lists the types of wastes expected to be generated from the long-term storage of Pu. There is no generation of spent nuclear fuel or HLW associated with the storage of Pu.

Table E.3.1–2 lists the types of wastes expected to be generated from the long-term storage of uranium. There is no generation of spent nuclear fuel, HLW, or TRU waste associated with the storage of uranium.